

BOOK REVIEW

DAVID BRAMWELL AND JULI CAUJAPÉ-CASTELLS (EDS.). 2011. **The Biology of Island Floras**. (ISBN 978-0-531-11808-8, hbk.). Cambridge University Press, 100 Brook Hill Drive, West Nyack, New York 10994-2133, U.S.A. (Orders: www.cambridge.org; phone 1-800-872-7423, fax 845-353-4141), \$120.00, 536 pp., weight 2.65 lbs., 72 b/w illus., 36 tables, 9³/₄" × 6⁷/₈".

It is estimated that the biodiversity of 53 archipelagos includes between 50,000 and 52,000 plant endemic species worldwide that are highly threatened, and 20,000 of these species are in critical danger of extinction as part of fragile ecosystems. This suggests the urgency and importance of continued study of island biodiversity and conservation highlighted in this book. The 21 separate chapters and 48 authors discuss the evolution, diversity, and conservation of island vascular plants.

Some examples of chapters that emphasize specific island groups are: Origin and evolution of Hawaiian endemics: new patterns revealed by molecular phylogenetic studies; Origin and evolution of Galapagos endemic vascular plants; The plants of the Caribbean islands: a review of the biogeography, diversity and conservation of a storm-battered biodiversity hotspot; The biogeography of Madagascar palms; Evolution and biogeography of the flora of the Socotra archipelago (Yemen); Biogeography and conservation of the flora of New Caledonia; Phytogeography and relationships of the Pitcairn Islands flora; Chromosomes and evolution in New Zealand endemic angiosperms and gymnosperms; Jesters, red queens, boomerangs and surfers: a molecular outlook on the diversity of the Canarian endemic flora; and Dispersal, diversity and evolution of the Macaronesian cryptogamic floras.

The prestigious list of 48 contributors are represented by Juli Caujapé-Castells, David Bramwell, Daniel J. Crawford, Gregory J. Anderson, Gabriel Bernardello, Paula Posadas, Jorge V. Crisci, Liliana Katinas, Sterling C. Keeley, Vicky A. Funk, Alan Tye, Javier Francisco-Ortega, Michael Maunder, Melissa Abdo, Rosalina Berazain, Colin Clubbe, Francisco Jiménez, Ángela Leiva, Eugenio Santiago-Valentín, John Dransfield, Mijoro Racotoarinivo, Lisa M. Banfield, Kay Van Damme, Anthony G. Miller, Steve Waldren, Naomi Kingston, Brian G. Murray, Peter J. de Lange, M. Dolores Lledó, Per O. Karis, Manuel B. Crespo, Michael F. Fay, Mark W. Chase, Alain Vanderpoorten, Ben Laenen, Rosalina Gabriel, Juana M. González-Mancebo, Fred J. Rumsey, Mark A. Carine, Michael Kiehn, Ole Hamann, Stuart Cable, Jennifer L. Trusty, Herbert C. Kesler, Jorge Rodríguez, Sara Oldfield, and Vernon H. Heywood.

The Socotra archipelago in the Indian Ocean off the coast of Yemen currently counts 835 as endemic vascular plant species. Some of the tree species are unique plant growth forms found nowhere else in the world. The most outstanding example is the so-called bottle tree (*Adenium obesum* subsp. *sokotranum* (Apocynaceae)), a succulent that stores water in the swollen trunk. Also, *Dorstenia gigas* (Moraceae) has a similar appearance and is far larger than any other species of its genus, suggesting these may be examples of island gigantism. The island has been described as the most alien-looking place on the planet earth. Additionally, the dracoid growth forms (e.g., *Dracaena cinnabari* (Ruscaceae))—which have a single trunk with ramified branches coming off at one point on the trunk giving an umbrella-shaped crown—occur in 15 unrelated species, suggesting that this growth form has survival value in this landscape.

Exploration, collections, and research on island biology have been supported largely by botanic gardens as part of Botanic Gardens Conservation International, BDCI. These activities are highlighted in a chapter titled "Botanic gardens and the conservation of island floras." This network of people and organizations operates to support the multidisciplinary conservation objectives to protect and understand insular endemic floras. The features of this book update recent research advances including molecular biology, genetic diversity, population dynamics, invasiveness, and colonization events that include human intervention among others as they apply to island biology and conservation.

An abstract for each chapter that briefly summarizes the salient points represented in the topical headings would have been a valuable addition. Each chapter is a stand-alone thematic topic that has supporting references. This book should be on the bookshelf of every biologist who teaches plant evolution, plant systematics, ecology, and conservation as well as decision-makers and organizations who seek to preserve biodiversity.—Harold W. Keller, Research Associate, Botanical Research Institute of Texas, 1700 University Drive, Fort Worth, Texas 76102-4025, U.S.A.